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# Sun on Sun

Sun Microsystems, Inc.



***Prepared for:***  
***AF IT Services Strategy***  
***Industry Focus Session***

**3 - 4 February 04**

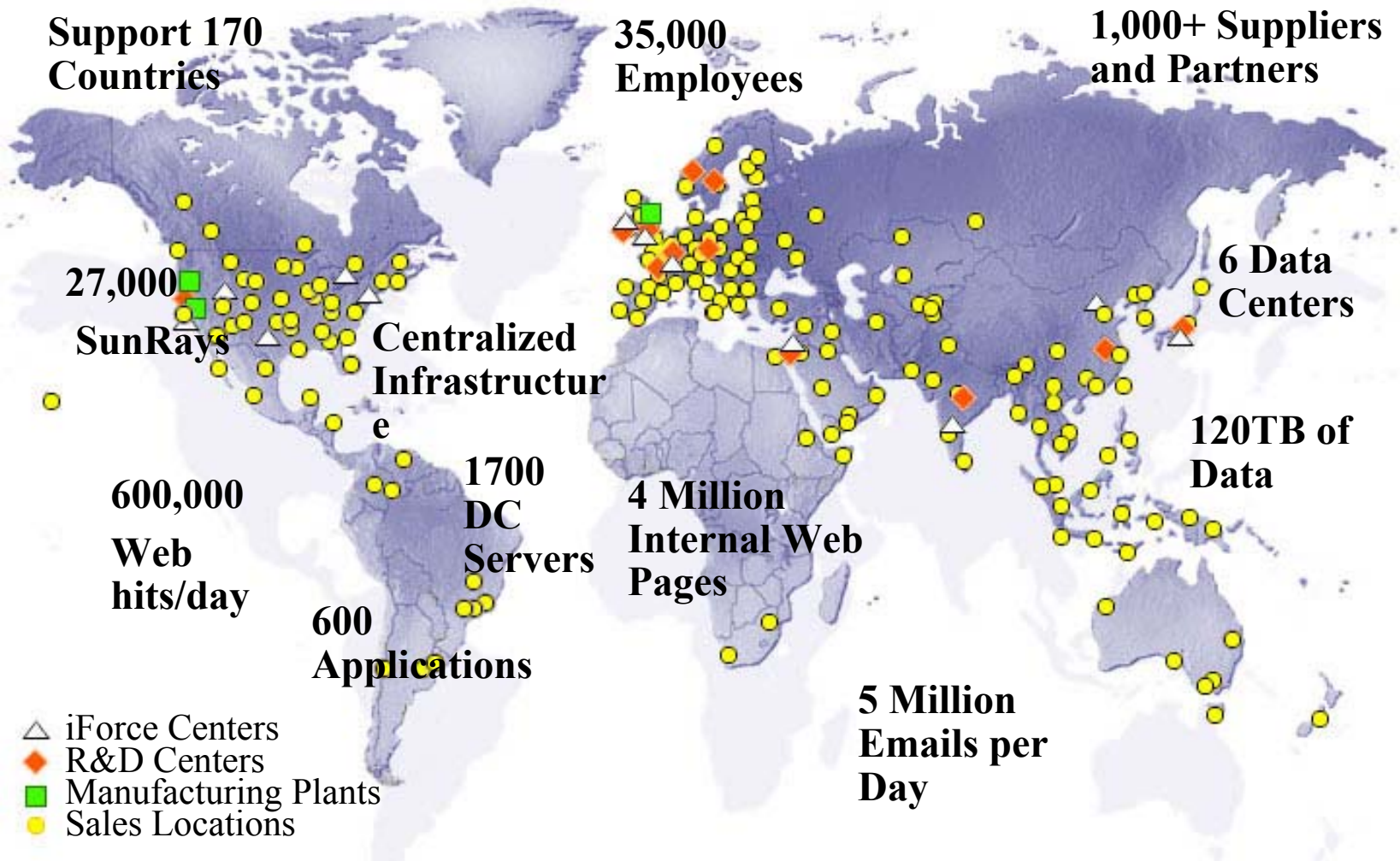
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# Briefing Agenda

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- **Sun IT scope & scale**
- **Sun IT Directions**
- **Methodology**
- **Strategic Imperatives:** *What IT did with lessons learned and \$ savings*
  - **Attack Cost & Complexity** - *Infrastructure*
  - **Accelerate Network Services** - *Service delivery*
  - **Unleash Mobility with security** - *User services*
- **Summary**

# Sun IT's Global Scope & Scale

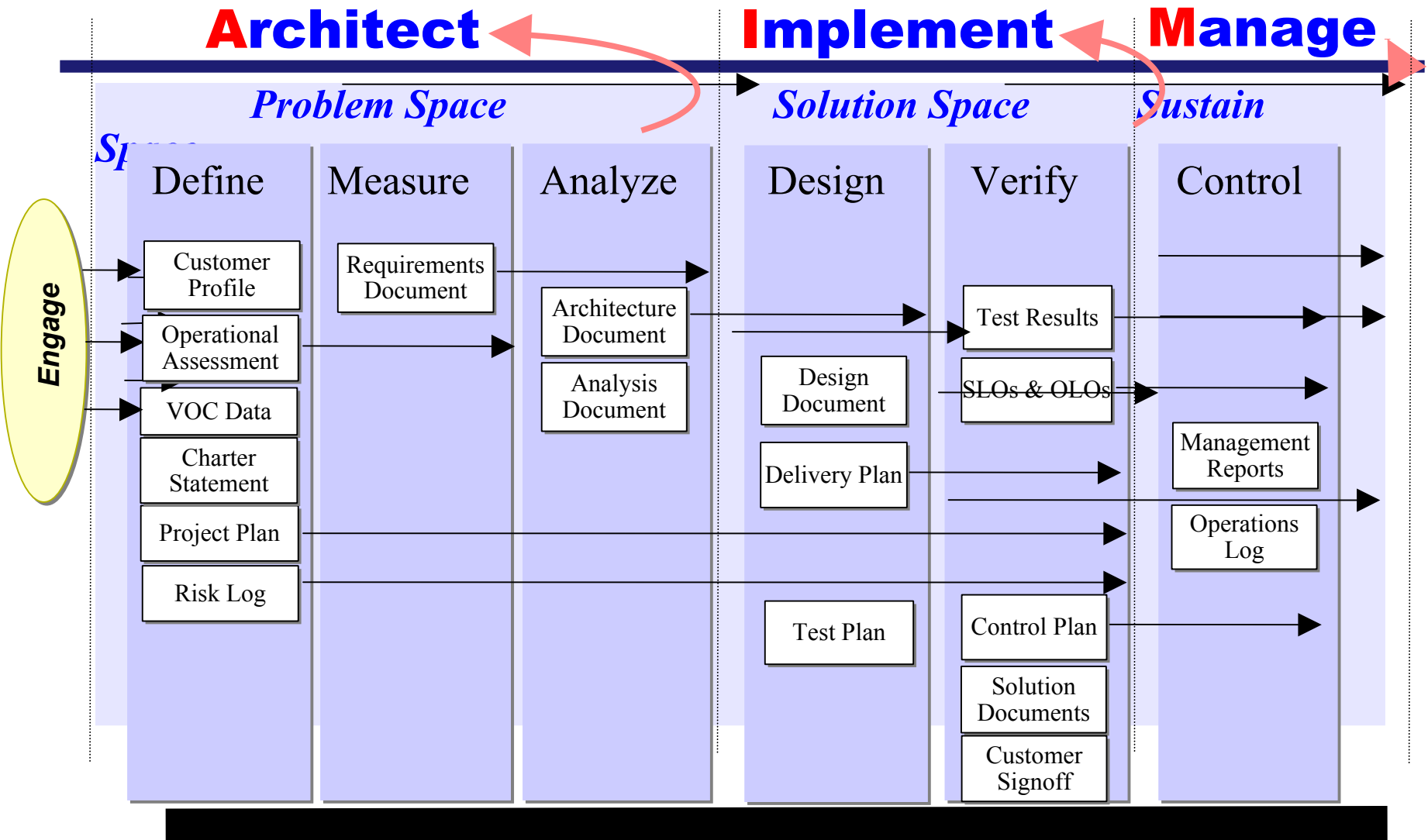


# Sun IT Directions

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- **Server Consolidation**
- **“DataTone” and Storage Consolidation**
- **SMI Portal (Universal User Interface)**
- **Services to the Edge (Email/Calendar)**
- **Service Fabric**
- **Java Badge™ Digital Identity**
- **Java™ Desktop System**
- **Global login/Flex Offices/Thin Clients, Persistent Sessions, Mobile Secure Access**
- **VoIP and Soft PBX**
- **“Nothing but Switch Gear” Offices**

# Methodology - AIM



# SUN'S 3 STRATEGIC IMPERATIVES

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**Service Infrastructure**

Attack Cost  
and  
Complexity



**Service Delivery**

Accelerate Network  
Services

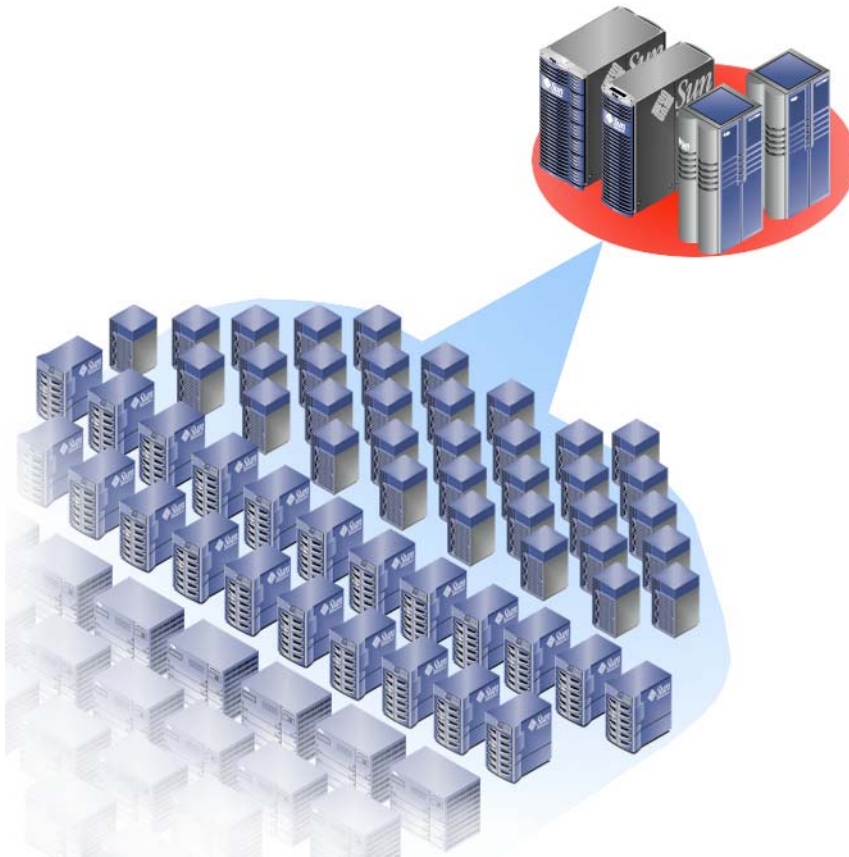


**User Services**

Unleash  
Mobility  
with Security

# Attack Cost & Complexity:

## Server Consolidation in Sun Data Centers



### Business Benefits:

**370 servers removed in 2003**

Allocation to shared/reused servers

Standardization reduced support

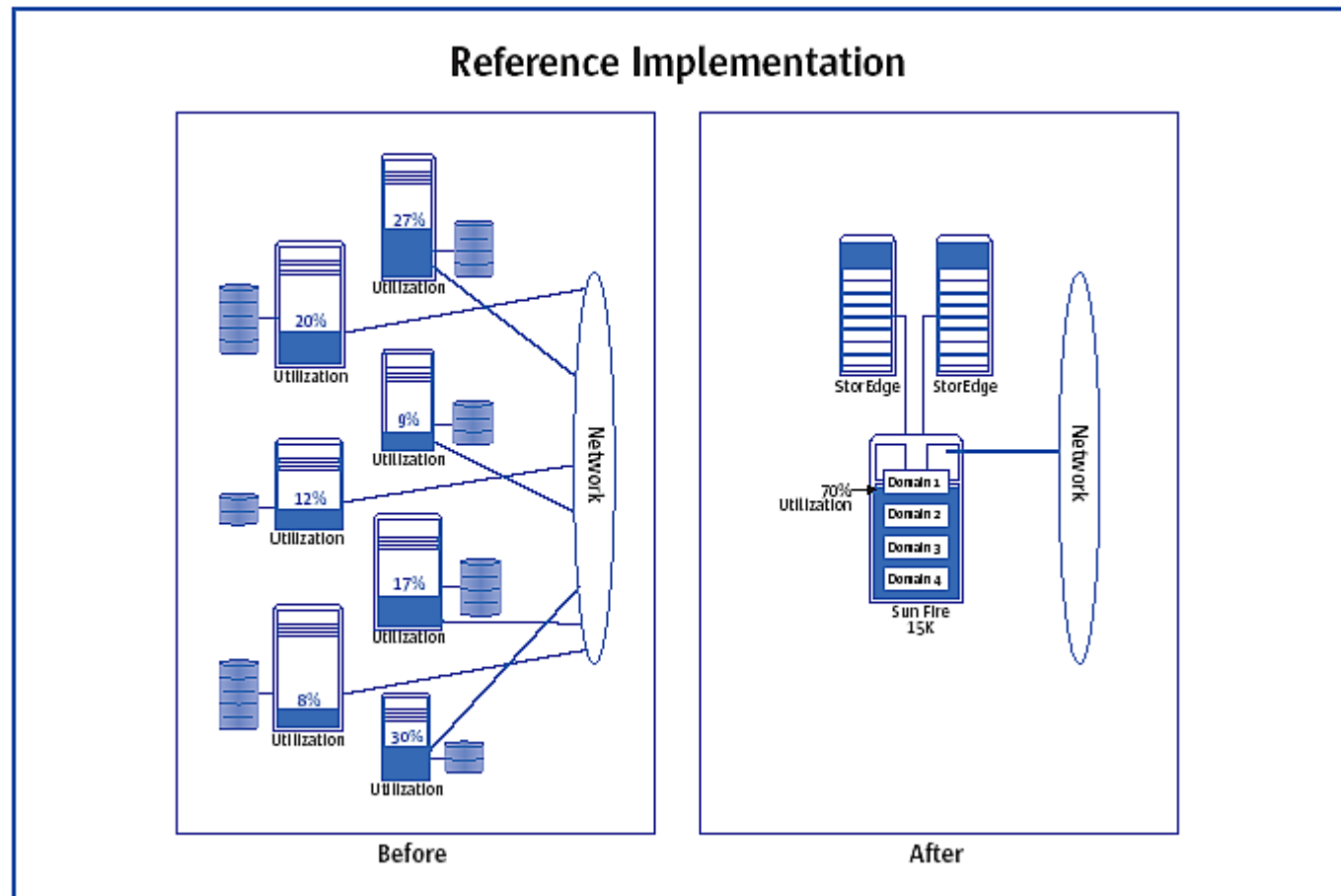
### Application deployment

Simplified due to standards & processes

Follow The Sun (Better support @ lower costs)

Moved to a 24x7 remote system monitoring & management

# Reference Implementation





# Application Consolidation

## - Oracle E- Business Suite



### Business Benefits:

Multiple ERP systems consolidated into a single global instance

Collapsed 42 different systems into one

Simplifies infrastructure resulting in better security and fail-safe capabilities

Close books in 26 hours vice 5 days

# Consolidation Prepares Sun IT Environment for N1™



- . System Provisioning
- . Service Provisioning
- . Policy Automation

**Virtualization of  
The Data Center as  
a Single System**

## Business Benefits:

Increased Server  
Utilization

Reduced Systems  
Administration

Increased Storage  
Utilization

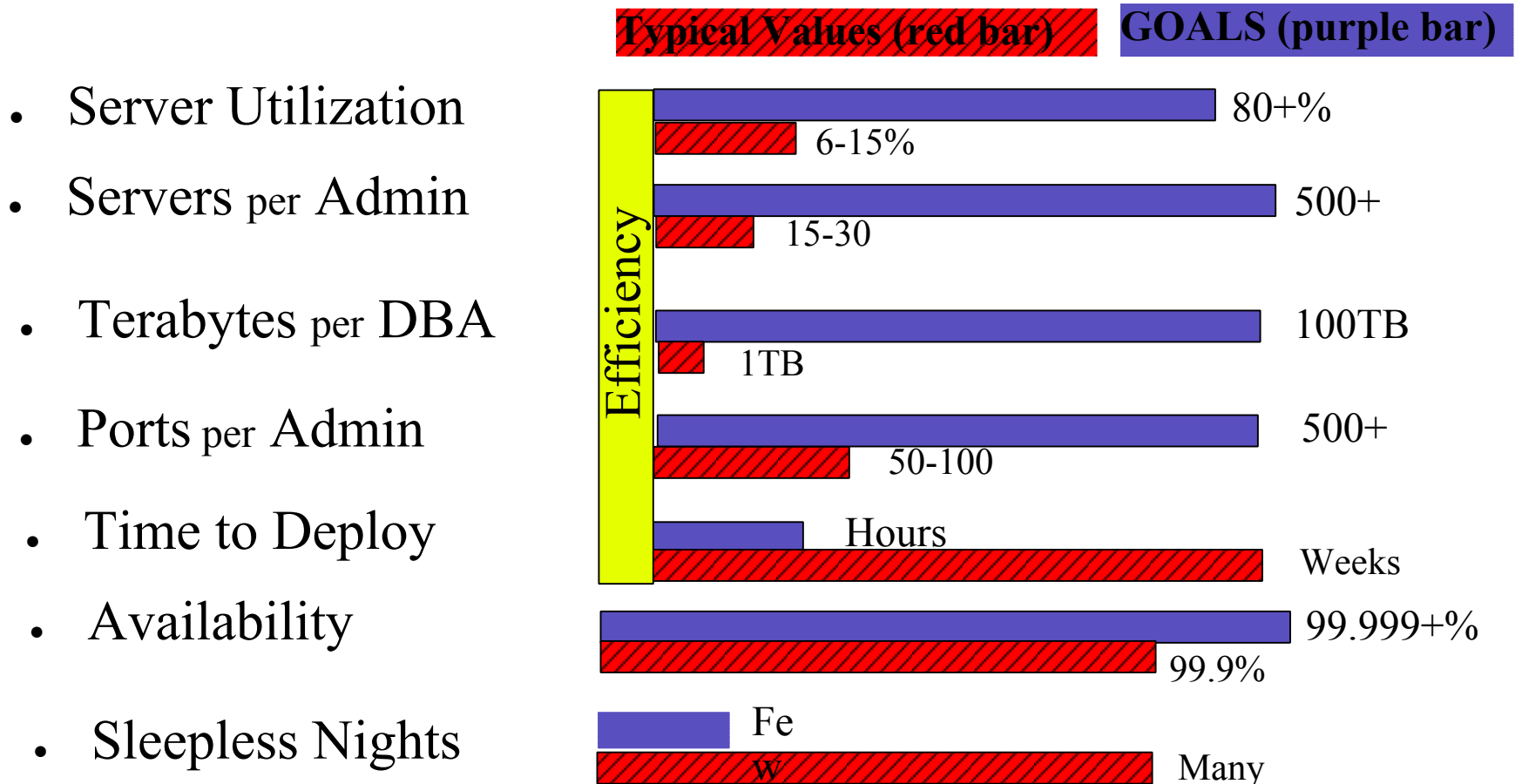
Improved  
Administration

Quicker Time to  
Deployment

Higher Availability

# Attack Cost & Complexity:

N1: Utility & Simplicity – Future of the Data Center



# Consolidation lessons Learned

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- Easy wins: consolidate within an organization
- Define architecture/standards at the start
- Clearly identify who “owns” the server
- Select applications with fewer dependencies
- With multiple apps in same environment – changes must be coordinated
- Access control & security must be tightly managed
  - To ensure granting access to one application the shared environment does not compromise access to another

# Attack Cost & Complexity: 2003 Summary

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Server Consolidation

Application Consolidation

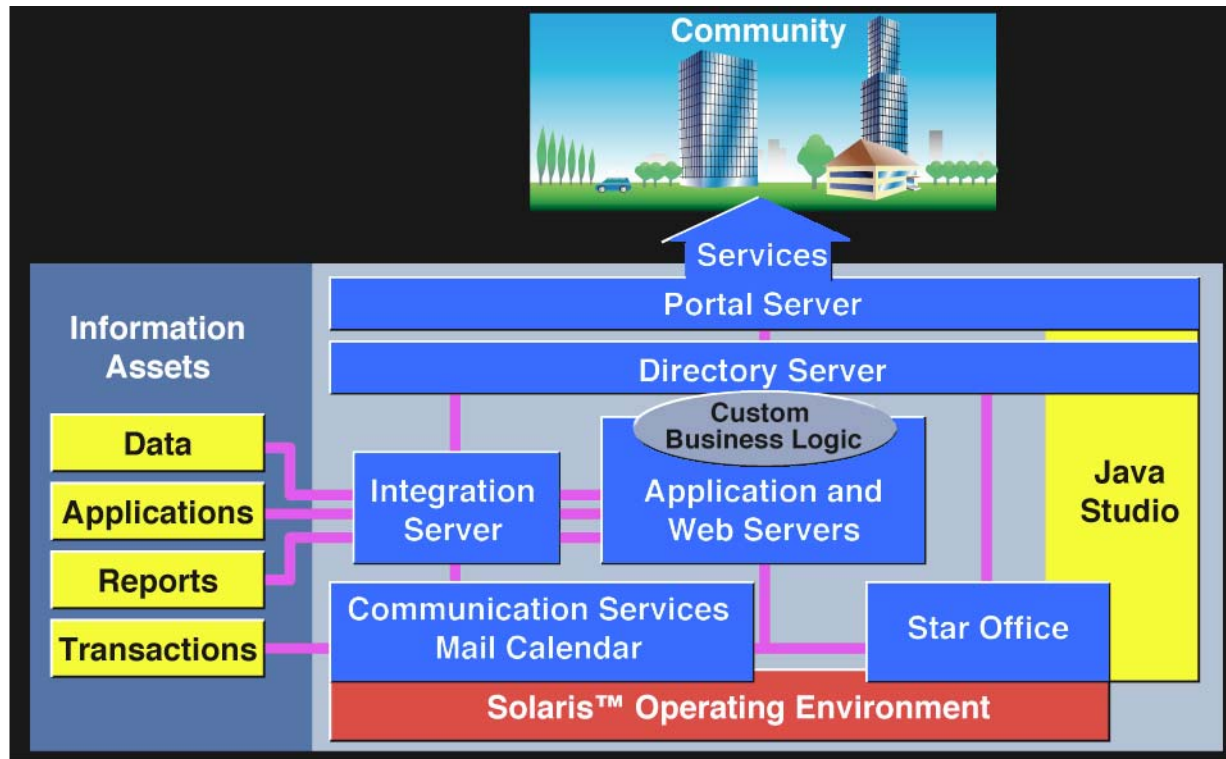
Virtualization

**Cost Savings = \$10.5M**

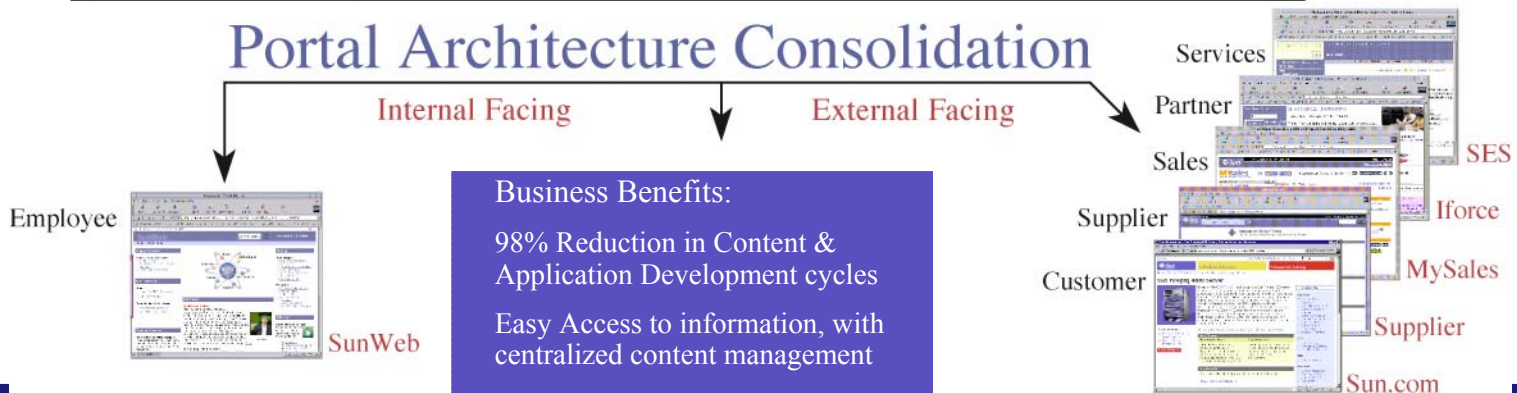
**Cost Avoidance = \$17.4M**

# Accelerate Network Services

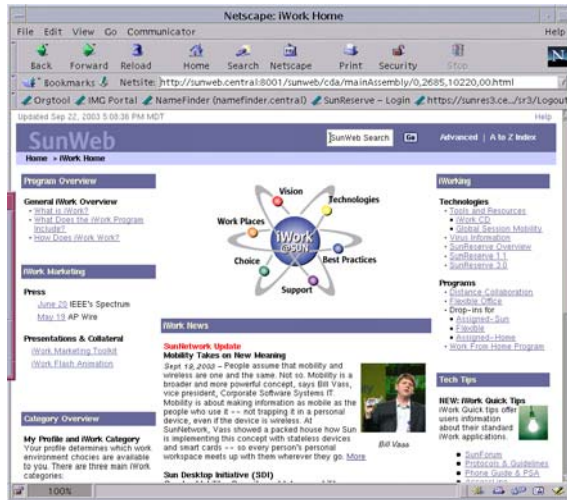
## Sun IT Web Services Architecture



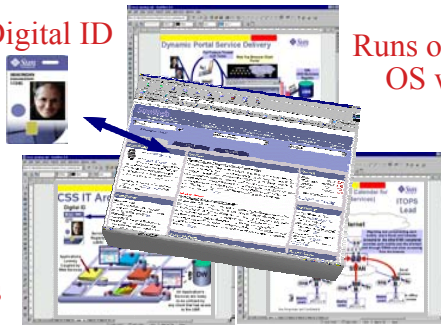
### Portal Architecture Consolidation



# Accelerate Network Services: Employee's Internal Portal



Digital ID



Runs on Any Device or  
OS with a Browser

Consistent Interface  
with Content Channels

Email & Calendar  
Delivered as a Service

All DARTS  
Available as  
Web Services

All Content & Services Delivered  
Through Channels: The Global  
Enterprise Portal

## Business Benefits:

105% ROI over 5 years

Soft benefits include..  
- Dynamic content  
enhances user experience  
- Easy access to commonly  
used tools

Cost-effective in the re- use of  
web services

User-based access to the  
enterprise network from  
virtually anywhere

# Lessons Learned - Accelerating Network Services Deployment

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*Conform to a services-oriented architecture for all new development*

*Buy rather than build*

*Ensure software conforms to infrastructure and industry standards*

*Authenticate based on network identity management services*

*Use standard development tools*

*Manage services across the company – the governance model*

*Establish and communicate policies*



# Accelerate Network Service: 2001 – 2003 Summary

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Portal utilization and Web enablement  
has yielded for Sun:  
Cost Savings & Cost Avoidance of \$248 M

# Mobility With Security:

## iWork...an integrated system of people, places and technology

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### Objective:

- Enable worker flexibility and mobility*
- Reduce operating expenses and consolidate office space*
- Increase worker-to-seat ratio*

### Tools

- *Java Card*
- *Thin Client (SunRay)*
- *Java Desktop System (JDS)*
- *Mobile devices (Laptops, etc.)*
- *Secure connectivity*

# JavaBadge

## One, Multi-App Badge vs. Multiple Cards



Corporate Card/  
Physical Access Card



Sun Ray™ Server  
Session Mobility Card



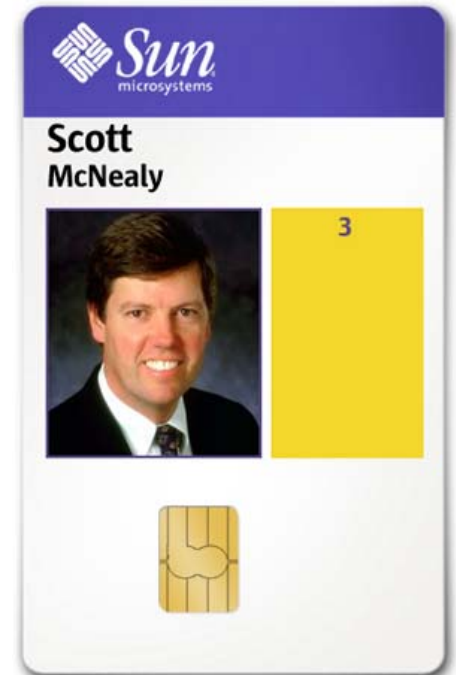
PKI Authentication  
Token Card/x509



Replaces Safeword  
Challenge/Response Card



ePurse/Payment Card



# Mobility With Security Today

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## Sun Rays

- 27, 000+ deployed at Sun
- Secure: token authentication
- Silent: no moving parts
- No User time for boot up and OS management

## Savings:

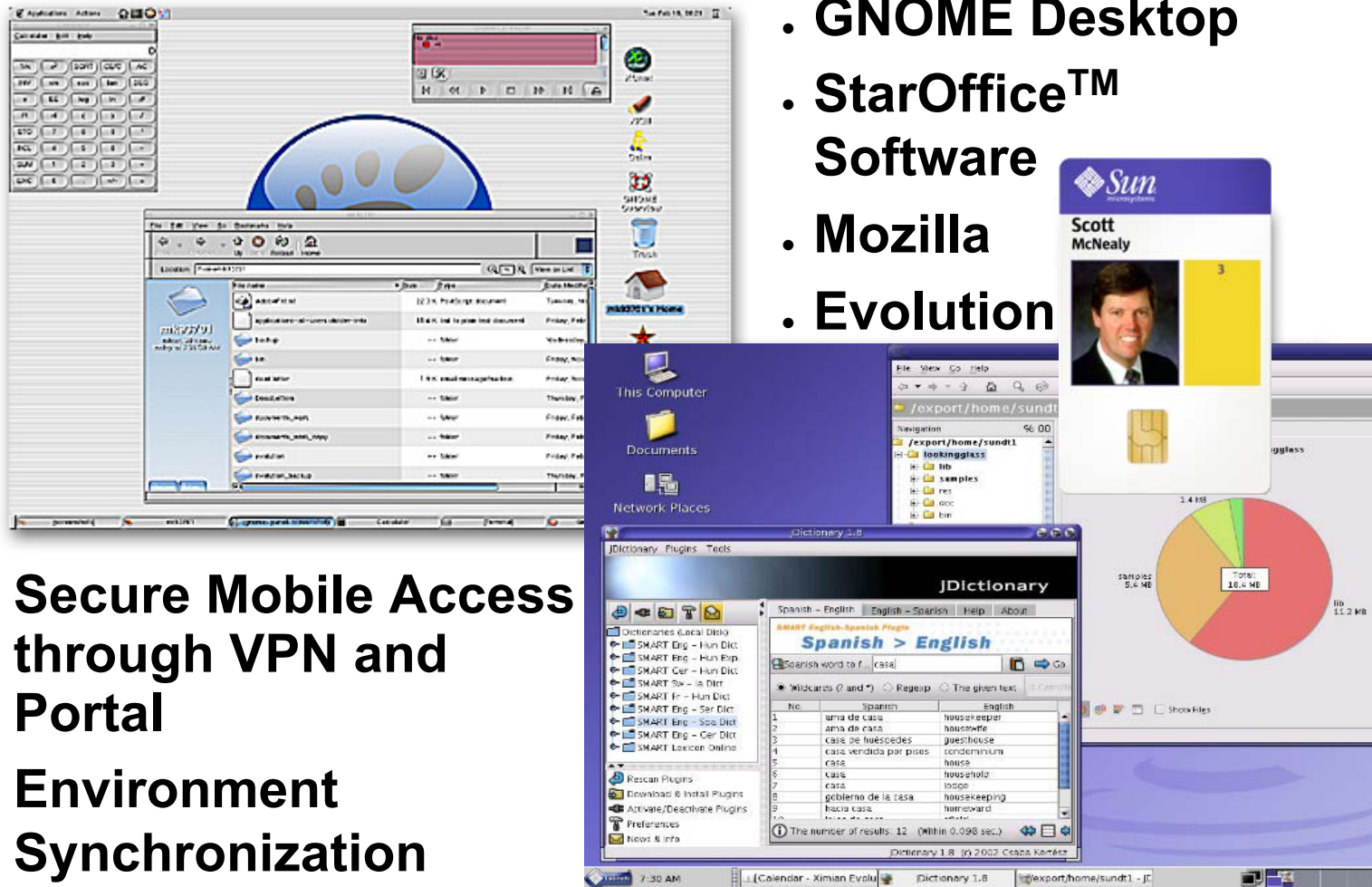
- Reduced System Admin Cost
- Patching and OS upgrade speed
- Software License
- Zero Move/Add/Changes
- Zero annual desktop refresh costs



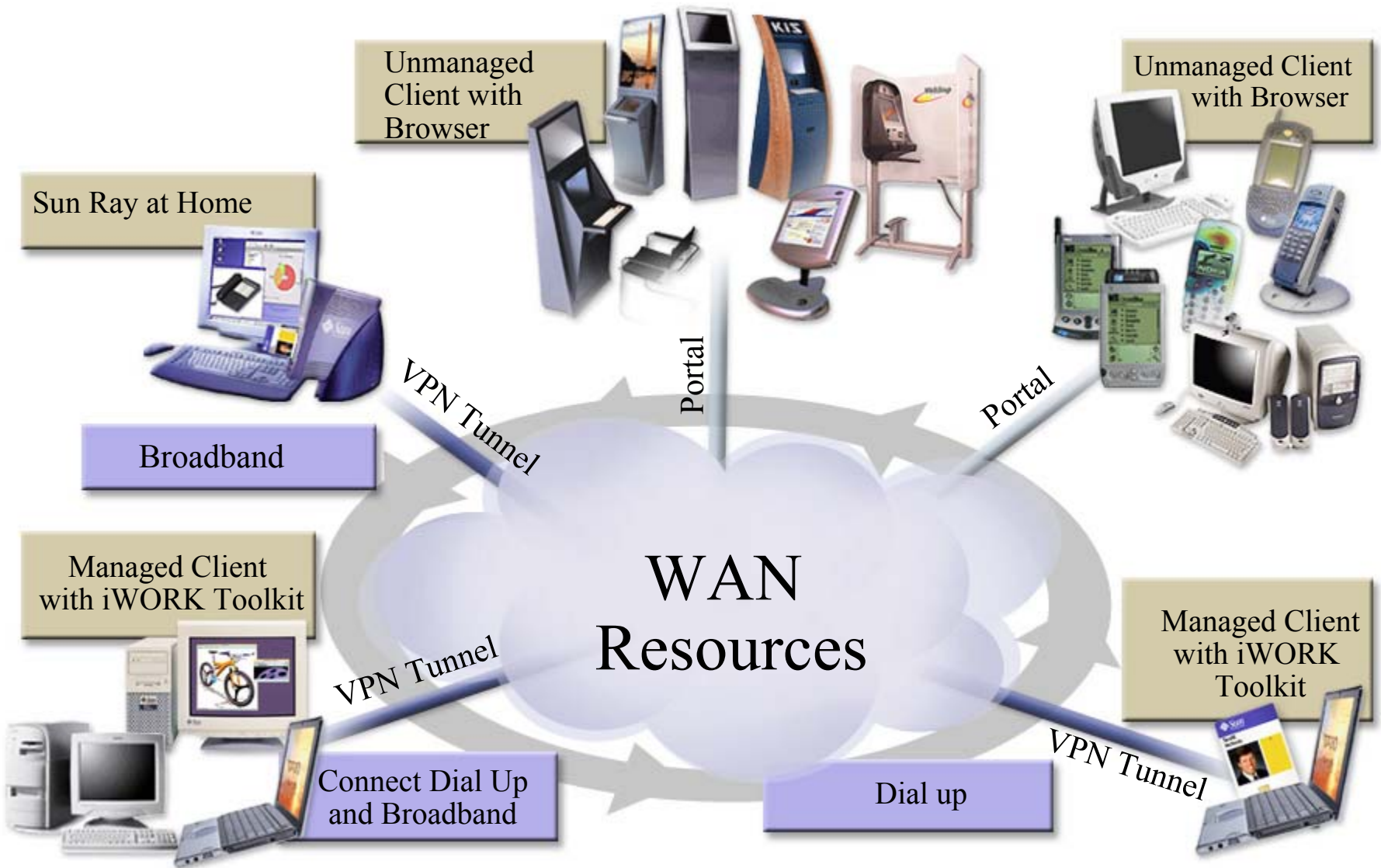
# Java Desktop System

- GNOME Desktop
- StarOffice™ Software
- Mozilla
- Evolution

- Secure Mobile Access through VPN and Portal
- Environment Synchronization
- Bundled Open Stack



# Secure Access Anywhere





# Mobility With Security Tomorrow

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- **Soft phone**
- **Soft PBX (available today)**
- **N1/Grid on Sun Rays**
- **Zero admin offices**
- **Sun Ray at home**
  - **No license costs**
  - **No admin costs**
  - **No lost data**
  - **No sync file problems**
  - **Secure connection with token**
  - **Fast and simple**



# Mobility With Security: 2003 Savings Summary

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Real estate : \$ 71.0 M

Power : \$ 2.8 M

Other : [ TBD ]



# Summary: Do More With Less..And Remain a Technology Leader

